REMARKS

This is a full and timely response to the non-final Office Action mailed by the U.S. Patent and Trademark Office on June 23, 2005. Claims 1-2 and 4-9 remain pending in the present application, and claims 10-15 have been cancelled. Claims 16-37 have been newly added by amendment. In view of the amended claims and the Remarks, reconsideration and allowance of the Application and claims are respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1 and 4-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.P.N. 6,243,755 to Takagi et al (hereinafter Takagi), in view of U.S.P.N. 5,696,965 to Dedrick (hereinaster Dedrick). Claim 2 stands rejected under 103(a) over Takagi in view of Dedrick and further in view of U.S.P.N. 6,199,077 to O'Neil et al (hereinafter O'Neil). Each claim rejected under 103(a) will be presented in turn.

For a claim to be properly rejected under 35 U.S.C. 103, "[t]he PTO has the burden under section 103 to establish a prima facie case of obviousness." In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988) (Citations omitted). In order to maintain a prima facie case of obviousness under 35 U.S.C. 103(a), three criteria must be met. Specifically, the Patent Examiner must show: (1) some suggestion or motivation in the prior art to combine reference teachings; (2) a reasonable expectation of success; and (3) the combination of references must teach or suggest all claim limitations. See, e.g., In re Dow Chemical Company, 837 F.2d 469 (Fed. Cir. 1988), and In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991). To reject claims as obvious under 35 U.S.C. 103(a), the burden rests on the Examiner to establish all elements of the prima face case. Unless the Examiner satisfies his burden of proving the prima facie case, claims may not be properly rejected as obvious.

Independent Claim 1

The Examiner rejects independent claim 1 of the Application on several grounds as being obvious over Takagi in view of Dedrick. Therefore, each ground of rejection is discussed in turn.

With regard to claim 1, the Office Action states that Takagi discloses "(a) determining an update time for information stored by a selected information provider (col. 4, lines 52-63)."

The cited lines of Takagi disclose:

a computer usable medium having computer readable program code means embodied therein for causing a computer to function as a system for controlling an information transfer to a first information processing apparatus from a second information processing apparatus via a network, the computer readable program means including: first computer readable program code means for causing the computer to provide a first knowledge concerning an activity schedule of a user using the-first information processing apparatus and a second knowledge concerning a relationship between a user's activity and an attribute of information;

Takagi broadly relates to information caching, and the above quoted lines relate to a user's activity schedule. The specification of Takagi provides examples of activity schedules and explains that an activity schedule is something the *user* creates to describe what the user will be doing and at what time and place he will be doing it. See Takagi Fig. 5.

Determining what a user will be doing in accordance with an activity schedule bears no relation to the step recited in claim 1 of determining the time at which information stored by an information provider is to be updated. In the Applicants' invention, various information providers store information that is known to be updated from time to time. Step (a) of the claimed method relates to determining when such updates are to occur. In contrast, the activity schedule of Takagi relates to the user's activity, not to any activity of an information provider. Thus, the Applicants respectfully assert that claim 1 is allowable for at least the reason that Takagi does not disclose step (a) of claim 1 of the Application.

With further regard to claim 1, the Office Action states that Takagi discloses "(b) determining a set of end users whose information satisfies a condition for information update at the determined update time; (col. 5, lines 9-20)."

Claim 1 states in relevant part

(b) determining a set of end users whose information satisfies a condition for information update at the determined update time; (Emphasis added).

The cited lines of Takagi disclose:

a computer usable medium having computer readable program code means embodied therein for causing a computer to function as a system for controlling an information transfer to a first

information processing apparatus from a second information processing apparatus via a network, the computer readable program means including: first computer readable program code means for causing the computer to provide a knowledge concerning an activity schedule of a user using the first information processing apparatus; second computer readable program code means for causing the computer to predict a necessary information which will be required by a user using the first information processing apparatus in future and a necessary time by which the necessary information will be actually required by the user, according to the knowledge concerning an activity schedule of the user; (Emphasis added).

The above quoted lines of Takagi relate to predicting information that will be required by a user in the future, rather than information stored at an information provider which could be updated. Thus, the Applicants respectfully assert that Takagi does not disclose step (b) of claim 1.

The Applicants also assert that Takagi does not disclose the condition limitation of claim 1. As discussed above, Takagi is directed to caching information requested by a user, not information updated at an information provider. The Applicants respectfully assert that claim 1 is allowable for at least the reason that Takagi does not disclose or suggest a condition for information update occurring at an information provider.

In response to the Applicants prior Office Action response mailed 2/16/2005, the Examiner states:

Applicant argued, "determination of an update time for information stored by a selected information provider and the determination of an end user set based on the determined update time".

In the prior art Takagi disclosed, some past time can be determined as prescribed period of time (such as an hour) before a scheduled time that is recognized as current time according to the prediction rule. Also some future time is to be determined to contain at least next time zone in which the network can be utilized at low cost (col. 13, lines 7-15). The terminal and the information server changes depending on time and place. In addition depend on activity of the user, there may be long period of time during which terminal is connected to the network (col. 7, lines 36-41) (Emphasis added).

The cited language from Takagi discloses:

For instance, some past time can be determined as a prescribed period of time (such as one hour) before a scheduled time that is recognized as a current time according to the prediction rule (R-5) described below by the previous execution of the step \$108. Also, some future time is to be determined to contain at least the next time zone in which the network can be utilized at low cost. For instance, some future time can be determined as a time at which the user's activity of the day ends when it is possible to expect that the network can be utilized at low cost at a location where the user's activity of the day ends. (Takagi col. 13, lines 7-17) (Emphasis added).

The terminal 10 is a mobile terminal such as a portable terminal, for which the sub-network 31 to be used for a connection between the terminal 10 and the information server 40 changes depending on time and place. In addition, depending on an activity of the user, there may be a relatively long period of time during which the terminal 10 is not connected to the network 30. (Takagi col. 7, lines 36-41) (Emphasis added).

The Applicants respectfully assert that the above-cited language form Takagi only discloses activity of the user, not determining an update time for information stored by an information provider as in step (a). Further, it does not disclose determining a set of end users whose information satisfies a condition for information update as in step (b). Thus, the Applicants respectfully assert claim 1 is allowable for at least the reason that Takagi does not disclose steps (a) or (b) of claim 1.

With further regard to claim 1, the Office Action states that Takagi discloses "(c) generating a predicted login time for each end-user in the determined set of end users (col. 3, lines 40-46)."

The cited lines of Takagi disclose:

prediction means for predicting a necessary information which will be required by a user in future and a necessary time by which the necessary information will be actually required by the user, according to a first knowledge concerning an activity schedule of the user and a second knowledge concerning a relationship between a user's activity and an attribute of information; (Emphasis added).

It is respectfully submitted that the above-quoted lines of Takagi do not disclose or suggest generating login times of users. Takagi discloses predicting a time that information will be required by a user in the future. Step (c) of claim 1 requires generating a predicted login time for an end user. The Applicants respectfully assert that predicting a time at which information will be required by a user does not anticipate predicting a login time for a user, as one of ordinary skill in the art will recognize that a user who logs in may or may not subsequently request information. Therefore, the Applicants respectfully assert that claim 1 is allowable for at least the reason that Takagi does not disclose step (c) as in claim 1.

With further regard to claim 1, the Office Action states that Takagi discloses "(d) sorting determined set of end users according to the predicted login time generated for each end user in the determined set (col. 3, lines 57-67)."

The cited lines of Takagi disclose:

prediction means for predicting a necessary information which will be required by a user using the first information processing apparatus in future and a necessary time by which the necessary information will be actually required by the user, according to a knowledge concerning an activity schedule of the user; and transfer control means for controlling the transfer of the necessary information from the second information processing apparatus to the first information processing apparatus via the network such that the necessary information will be transferred by the necessary time.

It is respectfully submitted that the above-quoted lines of Takagi do not in fact disclose sorting a set of end users according to the predicted login time generated for each end user. The above-quoted language discloses a system which predicts when information will be required by a user, not when a user will login. Further, nothing in the above language or in Takagi discloses or relates to sorting anything. Thus, it is respectfully asserted that claim 1 is allowable for at least the reason that Takagi does not disclose step (d) of claim 1.

In response to the Applicants prior Office Action response mailed 2/16/2005, the Examiner states:

In the prior art Takagi disclosed Predicting a necessary information will be required by a user using the first information processing apparatus in future and necessary information by which the necessary information which actually required by the user according to a knowledge concerning an activity schedule of the

user" (col. 3, lines 52-67) that tends to be one of the functionality of the sorting.

The Examiner's citation to col. 3, lines 52-67 of Takagi is the same citation discussed above with regard to step (d) of claim 1. Accordingly, Applicants assert that the referenced language from Takagi nowhere discloses sorting or its equivalent to one of skill in the art. In an effort to move the application forward, the Applicants respectfully request that the Examiner clarify what is meant by the phrase "that tends to be one of the functionality of the sorting."

The Applicants respectfully assert that claim 1 is allowable for at least the reason that none of the prior art references disclose or suggest assigning a harvest time based on a user's predicted login time.

Claim 1 states in relevant part:

(e) assigning a harvesting time for each end user based on each end user's predicted login time. (Emphasis added).

With regard to step (e) of claim 1, the Office Action states:

However Takagi failed to disclose assigning harvesting time for each end user. In the same field of endeavor Dedrick disclosed in one embodiment of the present invention, statistic compilation process 26 compiles electronic content-specific information for return to the metering server. This information includes, for example, how much time the end user spent consuming the electronic content and how much the content was consumed. For example, a particular advertisement may include ten different screens which are displayed to the end user (col. 7, lines 36-43).

Dedrick at col. 7, lines 36-43 discloses:

In one embodiment of the present invention, statistic compilation process 26 compiles electronic content-specific information for return to the metering server 14. This information includes, for example, how much time the end user spent consuming the electronic content, and how much of the content was consumed. For example, a particular advertisement may include ten different screens which are displayed to the end user.

The Applicants assert that step (e) of claim 1 is not disclosed by Dedrick because claim 1 does not recite any limitation directed to advertisements displayed to an end user as asserted in the Office Action: "a particular advertisement may include ten different screens which are displayed to the end user." Thus, the Applicants respectfully assert that Dedrick nowhere

discloses assigning a harvesting time for an end user, predicting a login time for a user, or assigning a harvesting time for an end user based on that user's predicted login time as recited in step (e) of claim 1. In an effort to move the application forward, the Applicants respectfully request clarification regarding how the above-cited language from Dedrick shows how an "end user's predicted login time as taught by Dedrick."

With regard to step (e) of claim 1, the Office Action also states:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the harvesting time based for each end user based on each end user's predicted login time as taught by Dedrick in the method of Takagi to make the network efficient in managing the user's profile.

The Office Action asserts that it would have been obvious to combine Takagi and Dedrick to arrive at the invention of claim 1 because the cited references combine to disclose managing a user's profile. The Applicants respectfully assert that there is no motivation to combine the references, and no reasonable expectation of success at combining the references, because claim 1 recites harvesting information based on predicted user login times, and has nothing to do with managing a user's profile.

In view of the above Remarks, the Applicants respectfully assert that claim 1 is allowable for at least the reason that the cited prior art references to Takagi and Dedrick do not disclose every limitation of claim 1. Claim 1 is also allowable for at least the reason that there would have been no motivation or suggestion to one of ordinary skill in the art to combine the references and arrive at the invention of claim 1.

Dependent Claim 2

Claim 2 stands rejected as obvious over Takagi, Dedrick, and O'Neil. The Applicants respectfully assert that claim 2 is allowable because the cited references do not disclose selecting end users to receive information from an information provider, nor eliminating users not configured to receive information from the information provider.

Claim 2 states in relevant part:

(i) selecting end users configured to receive information from the selected information provider; and

(ii) eliminating end users not configured to receive information subject to update at the determined update time.

The Office Action states:

In the same field of endeavor O'Neil disclosed the objects models focuses on the user's view objects in E-metro. This object model provides a detailed description of how objects behave and how they relate to each other at user level. In some cases the objects and classes at the user level will not map to an object or class in the target programming language. However, the transition from OOA object to OOD objects is, for the most part, very smooth. The object oriented Booch notation is employed in diagrams of this document as means to communicate relationships of objects visually (col. 49, lines 51-64).

The cited language from O'Neil discloses:

This section describes the object model of a cyber-community based personal and private information protection and brokerage system called "E-Metro." The object model focuses on the user's view of objects in E-Metro. This object model provides a detailed description of how objects behave and how they relate to each other at the user level. In some cases the objects and classes at the user level will not map to an object or class in the target programming language. However, the transition from OOA objects to OOD objects is, for the most part, very smooth. The object oriented Booch notation is employed in the diagrams of this document as a means to communicate relationships of objects visually. FIG. 23 depicts the basic notational symbols used and their meaning. The "uses for implementation" symbol is largely used for instance variables to denote that a Class needs the object in its implementation.

The cited language from O'Neil appears to discuss object oriented modeling and programming as known to one of skill in the art. Nothing in the cited language from O'Neil appears to be relevant to a limitation of claim 2. Thus, the Applicants respectfully assert that claim 2 is allowable for at least the reason that the cited language from O'Neil does not disclose selecting end users configured to receive information from an information provider, nor eliminating end users not configured to receive information. In an effort to move the application forward, the Applicants respectfully request clarification of the Examiner's citation and reasoning with regard claim 2.

Dependent Claim 4

The Applicants respectfully assert that claim 4 is allowable for at least the reason that Dedrick does not disclose sorting a set of end users in ascending order of predicted login times.

Regarding claim 4, the Office Action states:

As per claim 4 Dedrick disclosed wherein the step of sorting the determined set of end-users comprises sorting the determined set in ascending order of predicted login time (col. 10, lines 43-45).

Claim 4 states:

The method of claim 1, wherein the step of sorting the determined set of end users comprises sorting the determined set in ascending order of predicted login time. (Emphasis added).

As discussed above, none of the prior art references disclose sorting a set of end users based on predicted login times. Accordingly, the Applicants assert that Dedrick does not disclose sorting a set of end users in ascending order of predicted login time.

The language cited by the Examiner as disclosing the sorting limitation of claim 4 states:

The transaction database 32 contains the end user's account along with a log of the transaction, including the price of the transaction.

The Applicants respectfully assert that the above-cited language from Dedrick does not disclose sorting a set of end users in ascending order of their respective predicted login times as required by claim 4. Additionally, the Applicants also assert that claim 4 is allowable for at least the reason that it depends from allowable independent claim 1.

Dependent Claim 5

Claim 5 of the application stands rejected as obvious over Takagi in view of Dedrick. Claim 5 further defines a method for generating predicted login times for users, and is composed of several steps. Thus, the rejection of each step is traversed in turn.

The Applicants respectfully assert that claim 5 is allowable for at least the reason that the cited references do not disclose determining whether a login time profile associated with a user meets a predetermined confidence threshold, as required by step (i) of claim 5. The Office Action recites Dedrick at col. 10, lines 53-65 as disclosing the limitations of step (i).

The cited language form Dedrick discloses:

Thus, the metering server 14 contains an account balance, a user identification (such as an account number or a name), and may also include information indicating which information the user subscribes to. User profile data requested by metering server 14 from the client systems 12 is stored in user profile database 30, along with user profile data corresponding to electronic information being consumed by an end user. As discussed above, this user profile data does not specifically identify the individual end user. The account balance and user identification is contained in the transaction database 32. Therefore, the only information which is contained in the metering server which identifies an individual end user is that user's identification and an account balance, thereby maintaining the user's privacy.

The Applicants assert that the above-quoted language from Dedrick does not disclose a login time profile or a predetermined confidence threshold, each of which are recited in step (i). While the above-cited language contains references to a user profile, it makes no reference to a user's login time. Additionally, claim 5 is allowable because the above-cited language makes no reference to a predetermined confidence threshold.

Step (ii) of claim 5 recites:

for each end user whose login time profile does not meet the predetermined confidence threshold, assigning a predicted login time corresponding to the present day and time; and

The Office Action states that Takagi discloses each element of step (ii) at col. 15, lines 59-67 and col. 16, lines 108.

The cited language from Takagi discloses:

Outline: The activity/work is predicted from the user's habit for the work related to the task in the action list.

Triggering condition: A change in task and amount of remaining work.

Input: Date and time, activity/work, deadline, task, and amount of remaining work at a time of prediction.

Output: Activity/work and possibility.

Processing content: Assume that the habit of the user is that a possibility for carrying out the work related to the task while moving becomes high as the *deadline* approaches in view of the amount of remaining work for the task. Then, when a value in which an available work time obtained by subtracting the date and time of prediction from the deadline of a certain task is divided by the amount of remaining work is greater than *threshold* A, B, or C

(A>B>C), set large, medium, or small possibility for carrying out the work related to that task as the activity/work, respectively.

The above-cited language from Takagi references a triggering condition and a threshold. First, as discussed above, neither of the prior art references disclose, teach, or suggest predicting the login time of a user, which is recited in step (ii) of claim 5. Second, while the above-cited language includes the word threshold, the Applicants assert that the mere use of the word threshold does not anticipate step (ii) of claim 5, which requires a comparison between a user's login time profile and a predetermined confidence threshold. The Applicants assert that step (ii) of claim 5 does not merely claim a threshold in the abstract, but recites the comparison of a login time to a predetermined confidence threshold, and then assignment of a predicted login time, which is not anticipated or obvious in view of the references. The Applicants respectfully request that claim limitations be read and interpreted together as-claimed in order to properly determine claim scope and avoid impermissible hindsight reconstruction.

The Office Action asserts that Step (iii) of claim 5 is also disclosed by Takagi at col. 15, lines 59-67 and col. 16, lines 1-8.

Step (iii) of claim 5 recites:

for each end user whose login time profile does meet the predetermined confidence threshold, assigning a predicted login time based on the end user's login time profile.

The Applicants respectfully assert that step (iii) of claim 5 is not anticipated or obvious in view of the references for at least the reasons given for step (ii) of claim 5, above. Accordingly, the Applicants assert that claim 5 is allowable because the prior art references fail to disclose every element of claim 5. Additionally, claim 5 is allowable for at least the reason that it depends from allowable independent claim 1.

Dependent Claims 6 and 7

Claims 6 and 7 recite shifting a user's predicted login time and assigning a harvest time corresponding to a shifted login time, respectively. The Applicants respectfully assert that the language cited form Takagi nowhere discloses login times, as discussed above, and so by extension Takagi does not disclose or suggest shifting login times as recited in claims 6 and 7. Thus, claims 6 and 7 are each allowable for at least the reasons that none of the prior art

references discloses or suggests shifting login times, and because claims 6 and 7 dependent from allowable independent claim 1.

Dependent Claim 8

Claim 8 of the application stands rejected as obvious over Takagi in view of Dedrick.

Claim 8 further defines step (e) of claim 1, which is drawn to assigning a harvest time for a user based on a predicted login time. Claim 8 recites several steps, and each step is discussed in turn.

Step (i) of claim 8 recites:

performing a distribution fit across time to generate a polynomial function that allows determination of the number of end users subject to harvesting over a specified time period; (Emphasis added)

The Office Action asserts that Step (i) of claim 8 is disclosed by Dedrick at col. 7, lines 36-56, which discloses:

In one embodiment of the present invention, statistic compilation process 26 compiles electronic content-specific information for return to the metering server 14. This information includes, for example, how much time the end user spent consuming the electronic content, and how much of the content was consumed. For example, a particular advertisement may include ten different screens which are displayed to the end user. If the end user spends 15 seconds viewing the first screen and 15 seconds viewing the second screen and then terminates the advertisement, the statistic compilation process 26 transfers information to the metering server 14 indicating that an individual with this end user's user profile data spent 30 seconds viewing the electronic information and that the content was 20 percent consumed (that is, two screens out of ten were consumed). Additionally, information indicating the specific elements of the advertisements that were consumed (for example, the first two screens) is also transferred to the advertiser. Note that, as discussed above, this aggregate information does not reveal the identity of the end user who consumed the advertisement.

The above-quoted language from Dedrick appears to disclose compiling information about what content a user has viewed, and is particularly drawn to compiling content related to advertising. On the other hand, Step (i) of claim 8 is drawn to determining the number of users subject to harvesting over a period of time, which is accomplished by performing a distribution

fit to generate a polynomial function. The Applicants respectfully assert that the above-quoted language from Dedrick does not disclose any of the limitations recited in step (i), namely performing a distribution fit to generate a polynomial function in order to determine the number of users subject to harvesting in a time period.

Step (ii) of claim 8 recites:

determining a network activity curve of network activity associated with the host computer and the selected information provider;

The Office Action asserts that Step (ii) of claim 8 is disclosed by Takagi at col. 27, lines 5-64, which is not herein reproduced do the large number of lines cited. While the cites lines do use the words correlation and statistical data, the Applicants assert that the cited language nowhere discloses determining a network activity curve associated with a host computer and the selected information provider, as recited in step (ii) of claim 8. In an effort to move the application forward, the Applicants respectfully request clarification of the Examiner's citation and reasoning with regard to step (ii) of claim 8.

Steps (iii) and (iv) of claim 8 recite:

- generating an inverse of the determined network activity (iii) curve;
- performing an integral matching algorithm utilizing the generated polynomial function and the generated inverse of the network activity curve; and

The Office Action asserts that the limitations of steps (iii) and (iv) are disclosed by Takagi at col. 27, lines 5-64, and states "The statistical calculations involve taking the inverse of the graphs and doing correlations." While the cited language from Takagi uses the words statistical and correlation, the Applicants respectfully assert that use of these words does not disclose or suggest generating an inverse of a network activity curve as in step (iii), nor disclose or suggest performing an integral matching algorithm using a polynomial function and the inverse network activity curve as in step (iv) of claim 8. The Applicants respectfully request clarification of the Examiner's citation and reasoning with regard to steps (iii) and (iv) of claim 8.

Finally, step (v) of claim 8 recites:

(v) assigning harvesting times for each end user to redistribute peak harvesting time towards time zero to flatten the distribution fit across time.

The Office Action asserts that step (v) is disclosed by Dedrick at col. 7, lines 36-56, which is reproduced above regarding step (i) of claim 8. The cited language from Dedrick is drawn to compiling content related to advertising, and has nothing to do with assigning harvesting times for end users in order to redistribute peak harvesting time towards time zero. The Applicants respectfully assert that the cited language from Dedrick does not disclose any of the limitations recited in step (v), namely assigning harvesting times for end users to redistribute peak harvesting time towards time zero to flatten the distribution fit across time.

In view of the above Remarks, the Applicants respectfully assert that claim 8 is allowable for at least the reason that not every limitation present in steps (i) - (v) of claim 8 is disclosed or suggested in the cited prior art references. Additionally, claim 8 is allowable for at least the reason that it depends from allowable independent claim 1.

Dependent Claim 9

Dependent claim 9 stands rejected as obvious in view of Takagi over Dedrick. Claim 9 depends from claim 1, to which it adds a step drawn to harvesting information for an end user at the assigned harvesting time. The Office Action cites to Dedrick at col. 7, lines 36-56, as disclosing the limitations of step 9. The citation to Dedrick is reproduced above, and the Applicants respectfully assert that claim 9 is allowable for at least the reason that Dedrick does not disclose or suggest harvesting information from an information provider at the time assigned to a user, wherein the user's harvesting time is based on the user's predicted login time. Additionally, claim 9 is allowable for at least the reason that it depends from allowable independent claim 1.

Claims 16-19

The Applicants have added dependent claims 16-19 by amendment. Claim 16 further defines the information limitation of claim 1 to recite personal information. Claim 17 further defines the personal information limitation of claim 16 to recite personal financial information or personal communication information. Claim 18 further refines the personal financial

information limitation of claim 17 to recite billing information, financial account information, investment information, 401(k) information, benefits information, credit information, or mortgage information. Claim 19 further refines the personal communication information limitation of claim 17 and recites information from an email message, voice message, or fax message. Claims 16-19 have support in the Application as-filed, for example, at least on page 8 lines 13-17, and Fig. 5.

The Applicants respectfully assert that claim 16 is allowable for at least the reason that none of the cited prior art references disclose the method of claim 1 wherein the information is personal information as recited in claim 16. Similarly, the Applicants assert that claims 17, 18, and 19 are allowable because each depends from claim 16 and recites a type of personal information not disclosed in the cited references. Further, claims 16-19 are allowable for at least the reason that each depends directly or indirectly from allowable independent claim 1.

Claims 20-28

The Applicants have added independent claim 20 by amendment, with claim 20 combining limitations from allowable claims 1 and 5. Therefore, the Applicants respectfully assert that independent claim 20 is allowable for at least one or more of the reasons given for the allowability of claims 1 and 5. Further, the Applicants respectfully assert that dependent claims 21-28 are allowable for at least the reason that each depends directly or indirectly from allowable independent claim 20.

Claims 29-37

The Applicants have added independent claim 29 by amendment, with claim 29 combining limitations from allowable claims 1 and 8. Therefore, the Applicants respectfully assert that independent claim 29 is allowable for at least one or more of the reasons given for the allowability of claims 1 and 8. Further, the Applicants respectfully assert that dependent claims 30-37 are allowable for at least the reason that each depends directly or indirectly from allowable independent claim 29.

CONCLUSION

For at least the foregoing reasons, the Applicants respectfully request that all outstanding rejections be withdrawn and that all pending claims of this application be allowed to issue. If the Examiner has any comments regarding the Applicants' response or intends to dispose of this matter in a manner other than a notice of allowance, the Applicants request that the Examiner telephone Applicants' undersigned attorney.

Respectfully submitted,

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